

## NOTES AND DESCRIPTIONS OF THE CERCOPIDÆ OF CUBA.

BY Z. P. METCALF, North Carolina State College, Raleigh, N. C.  
and  
S. C. BRUNER, Estacion Experimental Agronomica de Cuba,  
Santiago de las Vegas.

This is the first of a series of papers on the Homoptera of Cuba which have been collected by the junior author during the past eight years. For some unknown reason the homopterous fauna of Cuba has been neglected since the publication of de la Sagra's "Historia. . . . . de Cuba," in 1856, which contained a list of the Homoptera of Cuba by Guerin-Meneville, with descriptions of new species, but he did not include a single Cercopid. In 1864, Uhler, (Proc. Ent. Soc. Philadelphia II: 155-162) described some new species of Hemiptera including three new species of Cecropidæ, *Clastoptera stolidæ*, *Clastoptera undulata*, and *Tomapsis (Monecphora) fraterna*, from Cuba. Again in 1876, (Bul. U. S. Geol. Survey I: 348) he described, *Lepyronia angulifera*, from Florida and stated that he had specimens from Cuba. The present list records fifteen species and one variety; twelve species appear to be new to science, indicating very clearly how much the Cercopid fauna of Cuba has been neglected. One new genus is also described, indicating that Cuba may be an important center for the development of this group. No less than five new species of the genus *Leocomia* Ball are recognized, indicating that Cuba may be an important center for the development of this genus, which was described from Hayti. The genus *Monecphora* is very poorly represented in our collections, only two species, *M. bicincta* Say, and its variety *fraterna* Uhler and *flavifascia* n. sp. *Monecphora bicincta* Say variety *fraterna* Uhler equals *Monecphora fraterna* Uhler.

***Monecphora bicincta fraterna* Uhler.**

*Monecphora fraterna* Uhler is certainly very close to the common North American *M. bicincta* Say and we believe that the two species are identical. The following points are evident in a comparison of *M. bicincta* from North Carolina, with *M.*

*fraterna*, from Cuba: Transverse bands on the wings irregular but complete in *bicincta*, usually broken into two or three elongate spots in *fraterna*. Vertex broadly rounded with median carina rather indistinct or not indicated on the pronotum in *bicincta*, vertex rather acutely angled with the median carina distinct, and usually strongly indicated on the pronotum in *fraterna*. Genital styles of the male rather acute at the apex, not strongly recurved, in *bicincta*, rather obtuse and strongly recurved, in *fraterna*.

This common species is a pest of "Parana" (*Panicum numidianum*) in Cuba and occasionally attacks sugar cane. It has been collected in the following localities: Manzanillo, July 31, 1922, S. C. B. and C. H. B.; Nagua, Oriente, July 7, 1922, S. C. B. and C. H. B.; Santiago de las Vegas, Sept. 2, 1915, S. C. B.; Baracoa, April 19, 1916, P. C.; Camaguey, Oct. 10, 1911, P. C.

We also have a single specimen from Manzanillo, July 21, 1922, S. C. B. and C. H. B., which is nearly uniform dull black above with pale golden pile. Transverse band narrowly indicated on the pronotum, dark red; transverse bands on the fore-wings indicated by a series of narrow elongate spots; face and eyes shining black. Legs and venter more or less washed with red; abdomen black with the borders of the segments and lateral pieces narrowly bright red. Otherwise this specimen seems to be identical with *M. bicincta ignipecta* Fitch.

### ***Monecphora flavifascia* n. sp.**

This species is very close if not identical with the dark form of *Monecphora saccharina* Dist. as illustrated by Williams (Memoir no. 1, Dept. Agr. Trinidad and Tobago.), but this species differs in several essential details from typical *M. saccharina* in our collections from Trinidad. We believe therefore that it should be described as a new species, especially since it may prove to be of economic importance as a sugar cane pest.

Vertex about one half as long as width between the eyes, anterior margin rather pointed; discal area strongly elevated; ocelli separated from each other by about the diameter of a single ocellus; face strongly inflated, transverse ridges con-

spicuous, median carina well elevated. Pronotum nearly twice as broad as long. Spine near base of hind tibia short, weak, spine near apex long stout. Male genitalia with the ventral gonapophyses short and stout, contiguous to their apices which are obliquely truncate; lateral gonapophyses elongate, widely separated basally, contiguous apically, the apices claw-shaped with the two claws inclosing a nearly circular area; œdagus slender, inclosed in an evident sheath basally; tenth and eleventh segments sub equal.

In *saccharina* the ventral gonapophyses are elongate, contiguous to the apical third, then curvingly separated ending in short blunt processes; the lateral gonapophyses are elongate well separated basally then contiguous in the middle of their length and then widely divergent, the claws inclosing a long oval area.

Holotype, male, Perico, Matanzas, September 30, 1910.

Allotype, female, same locality.

Paratypes, 3 males, 12 females, same locality.

### Leocomia Ball.

The genus *Leocomia* was described by Ball in 1919 (Proc. Iowa Acad. XXVI: 143-150) from a single specimen from Hayti. We describe below six new species of this interesting genus which seems to be West Indian in its distribution. Our species differ from the generic description as given by Ball in having a prominent spine in the middle of the hind tibiæ, and in other minor points, but we do not think that they are generically distinct. One of these forms was collected from *Pilia* sp. but the food plants of the others are not known.

### *Leocomia grisea*, n. sp.

A uniform grayish species, the largest of the genus from Cuba, with a well produced vertex and strongly sloping wings.

Vertex flat, strongly produced in front of the eyes, gradually narrowed to the apex; ocelli slightly nearer each other than the eyes; eyes moderately large, not prominent; frons flat; pronotum but little longer than the produced vertex; anterior margin broadly rounded, posterior margin shallowly

excavated; mesonotum about twice as long as broad equaling the pronotum. Venation of fore wing weak; venation of hind wing typical. Hind tibiæ with two spines both stout, the one at the middle twice as long as the one at the base.

Color above and below, nearly uniform grayish tawny, eyes, median area of the frons, tip of the rostrum, spines, claws and ovipositor, blackish.

Length, 5.10 mm.; width across prothorax, 2.10 mm.

Holotype, female Sierra Maestra, 3000-3500 ft., July 10-20, 1922, S. C. B. and C. H. B.

### ***Leocomia balloui* n. sp.**

This is another species with a strongly produced vertex, dull black to piceous variegated with creamy white and tawny.

Vertex foliaceous, flat, strongly produced about two-thirds the length of the pronotum; ocelli rather close together; eyes rather prominent; frons very flat; pronotum rather strongly arched; mesonotum about as long as vertex, apical portion rather slender. Fore wings nearly vertical, strongly roughened, venation prominent; venation of hind wing typical. Middle spine of hind leg large, basal spine small.

General color dull blackish or piceous; anterior margin of vertex, tawny; fore wings with a narrow creamy white band extending irregularly from the claval margin near the middle of the mesonotum to the middle of the costal margin, apical third creamy white to tawny with veins black.

Length, 4.90 mm.; width across prothorax, 1.80 mm.

Holotype male, Pico Turquino, July 20, 1922, S. C. B. and C. H. B., 5000 ft.

Allotype female, Pico Turquino, July 20, 1922, S. C. B. and C. H. B. 5000 ft.

### ***Leocomia nagua* n. sp.**

A short robust species with short wings and a short vertex.

Vertex rather short parabolic, ocelli equidistant from each other, and the eyes; frons slightly produced, but flat on the disc; pronotum about twice as broad as long broadly curved and

somewhat angled anteriorly, deeply angulate posteriorly; mesonotum nearly as long as pronotum sides slightly arcuated. Fore wings rather broad, short, rounded posteriorly; venation distinct apically. Middle spine of hind tibiæ long, basal spine small.

Color, dull piceous brown with golden yellow pile; fore wings with a diagonal band from the middle of the clavus to the middle of the corium, and two small transparent spots on the costal margin, one near the middle and one near the apex of the wing. Sometimes two large greenish white spots on middle of pronotum.

Length 3.90 mm.; width across prothorax 1.80 mm.

Holotype male, Nagua, Oriente, July 1922, S. C. B. and C. H. B., 850 ft.

Allotype female, Nagua, Oriente, July 1922, S. C. B. and C. H. B. 850 ft.

Paratypes 2 males and 1 female Nagua, Oriente, July 1922, S. C. B. and C. H. B., 850 ft.

### ***Leocomia maestralis* n. sp.**

This is a dull tawny species with a rather short acute vertex.

Head as wide as the pronotum; vertex produced, narrowed anteriorly, rather acute; ocelli nearer each other than the eyes; frons flat; pronotum nearly twice as broad as long, not much curved anteriorly, excavated as a right angle posteriorly; mesonotum as long as the median length of the pronotum, sides lightly arcuated. Fore wings elongate, somewhat expanded on the costal margin, somewhat rugose, veins narrow but rather distinct; spines on the hind tibiæ stout.

Color, dull tawny clothed with golden pile; face and abdomen brown; apex of fore wings shading to brown; eyes dull black, claws and spines black.

Length 4.50 mm.; width across prothorax 1.60 mm.

Holotype male Sierra Maestra, July 10-20, 1922, S. C. B. and C. H. B., 3500-4200 ft.

Paratype male, Sierra Maestra, July 10-20, 1922, S. C. B. and C. H. B., 3500-4200 ft.

***Leocomia pileae*, n. sp.**

A medium large species for the genus, dull black, with very short vertex.

Head slightly narrower than the pronotum, vertex short, rather acute anteriorly; frons strongly produced, the disc flattened, the lateral margins slightly inflated, faintly transversely striated; pronotum nearly twice as broad as long, sloping anteriorly; mesonotum elongate, the lateral margins strongly sinuated, the apex rather acute. Fore wings strongly sloping, rather rugose. Legs short and slender, the middle spine of the hind tibia elongate, stout.

Color black, anterior margin of vertex broadly dull yellow, sometimes entire vertex and anterior margins of prothorax dull yellow.

Length 4.90 mm.; width across prothorax 1.70 mm.

Holotype male Pico Turquino, July 20, 1922, S. C. B. and C. H. B., 5500 ft.

Allotype female Pico Turquino, July 20, 1922, S. C. B. and C. H. B., 5500 ft.

Paratypes 1 female and 2 males Pico Turquino, July 20, 1922, S. C. B. and C. H. B., 5500 ft.

***Leocomia fulva*, n. sp.**

This species may be recognized by its large size, pale golden yellow color and triangularly produced vertex.

Head rather narrow, pointed, the anterior margin nearly a right angle with the margins nearly straight lines; pronotum elongate, its length nearly two-thirds the width, the lateral margins strongly contracted and the posterior margin deeply indented by the mesonotum, with a distinct percurrent median carina; mesonotum broad, the lateral margins strongly sinuate, tip narrow.

General color golden yellow, the eyes and the tips of the fore wings shading to deep brown; legs and beneath, golden brown, the spines and tips of the tarsi and claws black.

Length 5.2 mm.; width across prothorax 2.1 mm.

Holotype female Pico Turquino, Cuba. July 20, 1922, 5000 ft. S. C. B. and C. H. B.

***Enocomia maestralis*, n. sp.**

This species is placed in the genus *Enocomia* Ball with great hesitancy as it does not agree in all points with the description of that genus.

Vertex narrow, transverse, somewhat rounded anteriorly, its median length greater than the length next the eyes; ocelli closer to each other than to the eyes; frons inflated, the median area with a prominent circular impression; pronotum broad nearly twice as broad as median length, lateral margins strongly converging posteriorly; mesonotum shorter than the pronotum. Wings short, broad, strongly inflated without an appendix, venation fairly distinct. Posterior tibia with a short stout spine beyond the middle, a very small spine at base.

General color, blackish brown shading to lighter on the apex of the vertex and the apex of the wings, with conspicuous pale yellow c-shaped marks on either wing. Vertex brownish, shading to pale yellow anteriorly; face black, dorsally pale yellow with four short dark arcs broken on the median line; eyes dark gray; pro- and mesonotum brownish uniformly covered with pale yellow pile. Fore wings blackish brown shading to paler apically, where the veins are blackish and conspicuous, uniformly coarsely punctured and covered with pale yellow pile. Base of the clavus with a broad pale yellow stripe which curves across the claval suture, then anteriorly to the costal margin, this stripe is more or less broken on the middle of the corium; apex of the clavus pale yellow, tibiae and tarsi pale brownish yellow with the claws and tips of the spines black. Abdomen dull black.

Length 3.9 mm.; width across the prothorax 1.9 mm.

Holotype male Sierra Maestra 10-20 July. 1922, C. H. B. and S. C. B., 3250-4400 ft.

Allotype female, Pico Turquino, 20, July 1922, S. C. B. and C. H. B. 5000 ft.

Paratype 1 male and 1 female Pico Turquino, 20 July, 1922, S. C. B. and C. H. B. 5000 ft.

**Dasyoptera, gen. n.**

In general appearance the members of this genus suggest a small species of *Aphrophora* Germ. and the venation of the fore and hind wings is quite similar. They differ however, in many important points.

Head narrower than the prothorax, somewhat angulate anteriorly; anterior disc of the vertex horizontal, posterior disc sloping; face elongate, flat, the disc flat giving the appearance of an elongate oval impression; pronotum broad nearly twice as broad as long, and the anterior margin distinctly broadly angulate, the lateral margins distinctly produced into shoulders; mesonotum nearly as long as the pronotum, broad anteriorly with the lateral margins concave, the apex attenuate. Fore wings long and narrow, the venation strongly elevated giving a very rugose appearance; venation about as in *Aphrophora* Germ., hind wings long and narrow, venation as in *Aphrophora*. Legs short, hind tibia with a long stout spine beyond the middle, and very short obtuse spine near the base.

Type: *D. variegata*, n. sp.

***Dasyoptera variegata*, n. sp.**

This species may be recognized by its general golden brown color, with the vertex and pronotum strongly marked with black.

Vertex broad, short, somewhat angularly produced anteriorly about half again as long on the median line as next the eye; face nearly twice as long as broad, faintly ovally impressed on the median line; pronotum viewed laterally broadly arched.

General color golden brown with golden yellow pile, this pile much paler in definite areas giving a spotted appearance; face with two large black spots apically, these spots continued over the apical margin as two black dashes on the vertex; posterior margin of vertex with two large black spots which are twice as far from each other as from the eyes; pronotum with a row of six small black spots near the anterior margin. Fore wings



with many spots of pale pile; hind wings transparent with brown veins. Legs and beneath, golden brown, the hind tibia darker.

Length 6 mm.

Holotype female Pico Turquino, Cuba, July 22, 1922, S. and C. H. B., 6770 ft.

### **Lepyronia robusta** n. sp.

A short robust species similar to *Lepyronia gibbosa* Ball but shorter, more robust and darker.

Vertex about half as long as its basal width; tylus triangular, deeply impressed; ocelli twice as far from each other as from the eyes; face moderately convex. Pronotum twice as broad as its median length, broadly incised posteriorly. Mesonotum lozenge-shaped. Fore wings short, broad, inflated; venation fairly distinct, typical; hind tibia robust, with two lateral spines about equidistant from each other and the base and apex of the tibia, the apical spine stouter. Male genital plates inflated, about three times as long as broad, together elongate oval.

Ashy gray above, darker on the vertex, pro- and mesonotum and clavus; the fore wings with a diagonal dark band from apex of clavus to middle of costal margin, and another band at apex of wings; the whole upper surface densely covered with short golden pile. Whole ventral surface, including eyes, legs and abdomen blackish.

Length male, 4.3 mm., length female, 5.6 mm.

This is apparently a very variable species and we are by no means sure that the two specimens listed under this name really belong together, but until more specimens are at hand, they may as well be listed thus.

Holotype male, Santiago de las Vegas, Jan. 9, 1922, S. C. B.

Allotype female, Manzanillo, July 31, 1922, S. C. B. and C. H. B.

### **Clastoptera undulata** Uhler.

This species may be recognized by its pale face with a broad brown band below the middle, and a series of seven to nine interrupted arcs above; vertex pale, crossed by an irregular brown band; pronotum pale with two brown arcs across the

middle, interrupted on the median line, and the posterior third clouded with brown; mesonotum dark, lateral margins pale. Fore wings dark with an irregular pale band across the middle, and the apex transparent.

We have a single typical specimen from Taco Taco, April 1-6, 1922, C. H. B. and S. C. B. and two paler females, one from Taco Taco and the other labeled Santiago de las Vegas.

### **Clastoptera stolida** Uhler.

This is a dark species with a series of three pale greenish yellow spots across the middle of the wings; vertex and pronotum more or less bordered with pale tawny yellow; face about as in *C. undulata* Uhler; legs pale.

Three specimens from Manzanillo, July 31, 1922, C. H. B. and S. C. B.

### **Clastoptera flavidorsa**, n. sp.

This species may be recognized by its broad short form, and distinctive yellow and black coloration.

Vertex rather short with the vertical part of the frons nearly parallel margined; frons strongly inflated; pronotum about twice as broad as long, broadly curved anteriorly; mesonotum large. Wings short and broad. Legs short and stout.

Head entirely shining black; anterior margin of pronotum bordered with shining black, this border wider on the median line and then narrowed until nearly concealed by the eyes laterad, rest of the pronotum and anterior half of the mesonotum bright yellow; apex of the mesonotum black. Wings nearly uniform brown, apical cell black. Face, venter and legs black, the tarsi shading to brown.

Length 2.75 mm.; width across the prothorax 1.50 mm.

Holotype female, Sierra Maestra, July 10-20, 1922, C. H. B. and S. C. B., 3500-4200 ft.

***Clastoptera cuba*, n. sp.**

This species is nearly uniform brown above, with the face twice banded with black.

Short robust; vertex rather deeply excavated posteriorly together with the vertical part of the frons obtusely rounded anteriorly; frons moderately flat, not inflated; pronotum not twice as wide as long; mesonotum elongate, very acute posteriorly, side margins feebly arcuated. Wings broad, short and somewhat inflated.

General color above tawny brown, corium shading to darker; face crossed by two black bands the area between, pale yellow, dorsal area uniform brown with dark arcs faintly indicated. Legs dull black, knees paler, and the hind tibia ringed with paler near the apex.

Length 2.75 mm.; width across the prothorax 1.74 mm.

Holotype female Palma Mocha Mt., Sierra Maestra 10-20 July 1922, C. H. B. and S. C. B., 3250-4200 ft.